# Each workshop participant will receive:

- T PSAT Software!
- Plant Assessment Tool!
- T Training Manual!

The tools you need to start realizing bottom line benefits today!

#### **OIT's Best Practices**

## **Providing Energy Efficiency and** Cost Savings for U.S. Industry

BestPractices is part of the US Department of Energy (USDOE). Office of Industrial Technologies' (OIT's) Industries of the Future strategy, which helps the country's most energy-intensive industries improve their competitiveness. Best Practices brings together the best available and emerging technologies and practices to help companies begin improving energy efficiency, environmental performance, and productivity right now.

Best Practices focuses on plant systems, where significant efficiency improvements and savings can be achieved. Industry gains easy access to near-term and long-term solutions for improving the performance of motor, steam, compressed air, and process heat systems.





Idaho Dept. of Water Resorces, Energy Division 1301 N. Orchard St., Boise, ID 83706





## **Improving Pumping System Efficiency**

A Workshop for People who Manage and Maintain Large Pump Systems

- practical info. - case study - software



Coeur D' Alene Inn, Coeur D'Alene, ID June 12, 2001

> Cottontree Inn, Pocatello, ID June 14, 2001

## Sponsored by:

**Idaho Mining Association Northwest Mining Association Industrial Pump Users** 



## FIND OUT HOW TO MAXIMIZE RETURN ON YOUR PUMPING SYSTEM INVESTMENT!

#### As energy prices increase it is critical to maximize pumping system efficiency.

There are three general elements to the workshop:

- An overview of pump, motor, adjustable speed drive, and fluid system performance characteristics.
- Practical issues involved in field measurements of fluid and electrical data.
- Use of the PSAT software, including application to real-world situations.

The Pumping System Assessment Tool (PSAT) is a software program that was developed for USDOE to assist you in determining where to focus your time and engineering resources to get the greatest return for the smallest investment.

#### LEARN FROM A TECHNICAL LEADER!

Don Casada is Consulting Engineer with Diagnostic Solutions, LLC, in Knoxville, Tennessee. He is responsible for technical leadership of a variety of tasks related to pump, valve, motor, and system evaluation for industrial and municipal facilities. He is the developer of the pumping system training programs and author of the PSAT software for the DOE Best Practices program, and has led numerous workshops in the U.S. and abroad.

> This workshop is applicable to all facilities with pumping systems, not just the mining industry.

#### **AGENDA**

### Continetal Breakfast and Registration - 7:30 Morning Session 8:00 am - 11:45 am

- Motor System Asset Management
- Overview of Fluid System Dynamics
- Pump Performance Characteristics
- Motor Performance Characteristics
- Adjustable Speed Drives efficiency vs speed and load
- Developing a system performance curve from Field Measurements
- Exercises—calculating system and pump heads; evaluating pump condition from fluid measure-
- Taking pressure, flow rate, and speed measurements

#### Lunch (provided) - 11:45 am

#### Afternoon Session 12:45 pm - 4:00 pm

- Taking electrical measurements safely
- How to estimate when direct measurements are not available
- Using the PSAT software
- Case Studies PSAT applications in the mining industry

Registration - There is an advance registration fee of \$25, or register at the door for \$40.

The fee includes:

- Continental Breakfast
- Training Materials

• Lunch

PSAT Software

For more information on the workshop call Ivan Urnovitz Northwest Mining Association, at 509-624-1158.

Cancelation Policy - June 5th, 2001 is the refund deadline for the Coeur D' Alene workshop. June 7th, 2001 is the refund deadline for the Pocatello workshop. If events require you to cancel, please call the above number. No refunds after these dates.

### REGISTRATION INFORMATION

Please register me for the following <i>Improving Pumping System Efficiency</i> workshops:
☐ Coeur D' Alene, ID - 6/12/01 ☐ Cottontree Inn, Pocatello, ID - 6/14/01
[PLEASE TYPE OR PRINT LEGIBLY]
Name:
Company:
Address:
City:
State:Zip:
Phone:
Fax:
REGISTRATION FEE: \$25.00 ADVANCE; \$40 AT THE DOOR SELECT METHOD OF PAYMENT
<ul><li>" Check enclosed (payable in U.S. Funds to GMA.)</li><li>" Visa " Master Card " AMEX (for advance registration only)</li></ul>
Card No
Expiration Date
Signature:
Please return completed registration form along with payment to:

Ivan Urnovitz Northwest Mining Association 10 N. Post Street. Suite 414 Spokane WA 99201772

phone: 509-624-1158 fax: 509-623-1241

## To ensure lunch and materials register early.

Please send separate form for each registrant.